STATISTICAL REPORT
1983

Social Hygiene Services

Sexually Transmitted Diseases

Alberta
SOCIAL SERVICES
AND COMMUNITY HEALTH

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TABLE OF CONTENTS

OVERVIEW	Page
Introduction	1
The Diseases	1
The Programs	2
CASES OF REPORTED CONFIRMED GONORRHEA AND SYPHILIS	4
TABLE 1 - Cases of Reported Confirmed Gonorrhea and Syphilis by Age and Sex	5
INCIDENCE RATES FOR GONORRHEA AND SYPHILIS	6
TABLE 2 - Gonorrhea: Disease Incidence for 1983	7
TABLE 3 - Syphilis: Disease Incidence for 1983	7
GONORRHEA NOTIFICATIONS BY REPORTING AGENCY	8
TABLE 4 - Cases of Confirmed Gonorrhea According to Reporting Agency by Age and Sex	9
GRAPH 1 - Percentage of Confirmed Gonorrhea Reported by Each Agency	10
GRAPH 2 - Percentage of Confirmed Syphilis Reported by Each Agency	10
DISEASE TRENDS SINCE 1945	11
TABLE 5 - Syphilis and Gonorrhea Cases and Rates: 1945 - 1983	12
GRAPH 3 - Incidence Rates for Gonorrhea and Syphilis: 1945 - 1983	13

Page

PPNG IN ALBERTA 14

TABLE 6 - Cases of Penicillinase-producing *Neisseria gonorrhoeae* in Alberta 1977 - 1983 15

NOTIFICATIONS AND CONTACT INFORMATION 16

TABLE 7 - Number of Contacts Named on Notifications Received for Confirmed Cases of Gonorrhea and Syphilis 17

CONTACT INVESTIGATIONS BY CLINICS 18

TABLE 8 - Number and Outcome of Investigations Carried Out by Social Hygiene Clinics 19

SOCIAL HYGIENE CLINICS - WORKLOAD 20

TABLE 9 - Social Hygiene Clinic Laboratory 21

TABLE 10- Serologic Tests for Syphilis Patient Visits to Clinics 22

EDUCATIONAL ACTIVITIES 23

TABLE 11- Education Sessions Presented in 1983 24

OVERVIEW

INTRODUCTION

Social Hygiene Services is the branch of Social Services and Community Health responsible for all aspects of the sexually transmitted disease control program in Alberta. The goal of the service is to provide a comprehensive program for the control of sexually transmitted diseases and therefore makes available diagnostic and treatment services through clinics located in Edmonton, Calgary and Lethbridge, epidemiolgic services, consultation to physicians, data monitoring, disease surveillance and public and professional education. Although operated through the auspices of the health unit, the Fort McMurray clinic also provides these same services to that city and its surrounding communities.

THE DISEASES

Disease surveillance is maintained for the four notifiable diseases; gonorrhea, syphilis, chancroid and lymphogranuloma venereum.

There was a large decrease in both the number of cases and rate for gonorrhea in 1983. With the actual number of cases declining 27.5%, the rate of 339.7 per 100,000 population is a reduction of 28.7% from 1982. This has been the third consecutive year there has been a decrease in the reported incidence of this disease, therefore it is unlikely that this is due to statistical artifact alone and probably represents a true diminution in the prevalence of gonorrhea in the community.

Although there has been an overall reduction in incidence, the pattern of disease distribution has changed little. Gonorrhea continues to affect the young; a full 80% of cases occurred in those 15-29 years of age. Female rates declined less than male rates with one third of the female cases occurring in the under 20 age group. This group should continue to be the focus of education endeavors in order to increase awareness and sustain efforts to reduce the attendant disease complications.

There was a dramatic 36% increase in the number of syphilis cases recorded for 1983. The count went from 225 cases in 1982

to 306 producing a rate of 13.0. This increase was confined to cases of infectious syphilis; over the past year Social Hygiene Services has been monitoring this outbreak which is focussed in Edmonton. Despite vigorous control activities containment of this outbreak has not been achieved due in part to the lifesyles of many of the infected individuals and their frequent inability to provide good information regarding contacts.

Fifteen cases of penicillinase-producing Neisseria gonorrhoeae were detected in 1983. Unlike the previous year there was no specific outbreak and all the cases were acquired through contact in the usual endemic areas. One isolate was confirmed to be resistant to spectinomycin, the drug normally reserved for treatment of cases of PPNG.

Although there was a significant decrease in the incidence of gonorrhea it would appear that the non-notifiable disease, non-gonococcal urethritis, remains extremely prevalent. At the Social Hygiene clinics laboratory testing for this disease has not decreased. As well, testing for genital herpes, also non-reportable, increased in 1983; public attention continues to be directed toward this condition.

There were no reported cases of the remaining notifiable diseases, chancroid and lymphogranuloma venereum.

THE PROGRAMS.

The diagnostic and treatment clinics continue to be well utilized despite the large drop in gonorrhea incidence. The major clinics in Edmonton and Calgary averaged 300 patient visits per week during 1983. The outbreak of infectious syphilis in Edmonton has required that a significant proportion of the Edmonton clinic's time and manpower be directed towards control activities.

The Calgary clinic moved to new quarters in October. The new facility with more space and an improved design insures better patient services and staff working conditions.

Standardization of patient care practices was furthered by the introduction of a clinic procedure manual early in 1983. For use by all the clinics, the manual covers patient management from initial examination through to treatment and follow-up. As well as being a valuable guide for the staff it also serves as a useful teaching tool for physicians and students attending the clinics for clinical

experience.

Education and public awareness programs are viewed as important components in the control of sexually transmitted diseases. Education presentations, delivered to a wide variety of audiences, increased by 25% from 1982. More than half of the 549 presentations were given to secondary school students, an important target group due to the high incidence of gonorrhea in young people. In February a public awareness campaign was mounted using posters, bus cards and a specially produced television advertisement which ran for a two week period throughout the province. The focus of the campaign was to inform the public of the availability of STD services in Alberta.

Clinical and microbiological studies continued through the STD clinics. A new laboratory technique to aid rural health care workers in the diagnosis of gonorrhea was evaluated as well as an attempt to improve the diagnosis of gonorrhea in females by obtaining two endocervical cultures. An evaluation of the etiology of genital ulceration was also undertaken. Finally, involvement in clinical herpes trials continued with evaluation of a new topical agent.

The incidence of non-notifiable STD's in clinic patients was examined as well as the epidemiology of our syphilis outbreak.

CASES OF REPORTED CONFIRMED GONORRHEA AND SYPHILIS TABLE I

Table I indicates the number of cases of gonorrhea and syphilis (all stages) reported to Social Hygiene Services.

The reported number of cases of confirmed gonorrhea declined by 3045 from 1982; a 27.5% decrease. Male cases exceeded female by 1227, with the male to female ratio of 1.36:1 continuing the trend of proportionately increasing female cases.

The number of syphilis cases counted (306) in 1983 represents a 36% increase over the 225 cases recorded in 1982. Infectious syphilis (primary, secondary and early latent) comprised 61.1% of the total compared to 37.3% in the preceding year. Cases of late latent syphilis dropped by 24 from 1982 contributing 36.3% to the total count. One case each of congenital syphilis under one year and neurosyphilis were noted. The male to female ratio of 2.3:1 remains similar to previous years.

TABLE 1

ALBERTA: 1983

CASES OF REPORTED CONFIRMED GONORRHEA AND SYPHILIS BY AGE AND SEX

	< 1		1 - 4		5 - 9		10 - 14		15 - 19		20 - 24		25 - 29		30 - 39		40 - 59		60+		AGE N/S		TOTAL
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
GONORRHEA	1	1		1		4	4	41	552	1091	1753	1374	1117	527	820	259	335	66	21	3	21	30	8021
SYPHILIS (TOTAL)	1								5	9	32	13	36	10	54	17	70	26	16	17			306
PRIMARY									4	8	18	6	20	5	36	5	40	7	5	2			156
SECONDARY									1	1	5	1	2	1	4	1	9	2	2				29
EARLY LATENT														1		1							2
LATE LATENT											9	6	12	3	12	10	19	17	8	15			111
LATENT UNSPECIFIED																	1						1
NEURO-SYPHILIS																			1				1
ACQUIRED STAGE UNKN.													2		2		1						5
CONGENITAL	1																						1
TOTAL	2	1		1		4	4	41	557	1100	1785	1387	1153	537	874	276	405	92	37	20	21	30	8327

Gonorrhea Male 4624
Female 3397

Syphilis Male 214
Female 92

INCIDENCE RATES FOR GONORRHEA AND SYPHILIS
TABLES 2 and 3

The incidence rate for gonorrhea showed a significant decline of 28.7% from 1982; 476.3 to 339.7.

The highest age specific rate continued to be demonstrated by the 20-24 year old group. Eighty percent of disease occurrence was attributable to the 15-29 age group: 59.5% occurred in the 15-24 bracket and the individual age groups 15-19, 20-24 and 25-29 contributed 20.5%, 39.0% and 20.5% respectively to the total infections reported. These proportions have not shifted to any degree over the past 5 years.

The incidence rate for males dropped 32.2% whereas the female rate declined by only 23.2%. Both male and female rates declined least for the 20-24 age group. The highest age-sex specific rate was noted for males 20-24 years old, followed by females aged 15-19 years.

A 34% increase over 1982 was recorded in the incidence rate for syphilis; 9.7 to 13.0. Rises were observed for all age groups with the exception of those under 15 years and for the 60 year plus bracket. For infectious syphilis, 22.5% of cases were acquired by individuals whose sexual preference was homosexual or bisexual representing 15% of the total cases.

ALBERTA: 1983

DISEASE INCIDENCE

EXPRESSED AS A RATE PER 100,000 POPULATION

TABLE 2

GONORRHEA

Age / Sex	<15	15 - 19	20 - 24	25 - 29	30 - 39	40 - 59	60+	Total
MALE	1.7	546.5	1287.1	783.3	406.1	151.7	18.6	382.8
FEMALE	17.1	1146.0	1061.8	408.5	140.2	32.0	2.3	294.6
COMBINED	9.2	837.4	1177.3	603.1	279.0	93.8	9.8	339.7

TABLE 3

SYPHILIS

Age / Sex	<15	15 - 19	20 - 24	25 - 29	30 - 39	40 - 59	60+	Total
MALE	0.3	5.0	34.2	24.3	26.7	31.7	14.1	17.7
FEMALE	0.0	9.5	10.1	7.8	9.2	12.6	12.8	8.0
COMBINED	0.2	7.1	17.3	16.5	18.4	22.5	13.4	13.0

NOTIFICATIONS BY REPORTING AGENCY
TABLE 4, GRAPH 1 and 2

Notifications of confirmed gonorrhea received from physicians comprised 48.2% of the total reported. When combined with the number of cases where only a report of a positive culture was received this percentage increased to 54.2. The Social Hygiene clinics in combination contributed 44.7% of the reports with the remaining 1.2% attributable to other sources.

While the number of reported gonorrhea cases was 27.5% less than in 1982, physician (plus positive culture) notified cases decreased by only 22.4% with a 33.1% decline in clinic reported cases. For patients seen by physicians, the male to female ratio was 0.9:1 with the clinics demonstrating a 2.4:1 ratio. This sex difference in service utilization was quite marked in the under 20 age group where physicians reported more than two and a half times as many females as males.

Seventy-two percent of the syphilis cases were reported by the Social Hygiene clinics. As expected, more than half of the total cases were handled by the Edmonton clinic, that city being the location of the recent outbreak of infectious disease.

TABLE 4

ALBERTA: 1983
CASES OF CONFIRMED GONORRHEA
ACCORDING TO REPORTING AGENCY
BY AGE AND SEX

	< 1		1 - 4		5 - 9		10 - 14		15 - 19		20 - 24		25 - 29		30 - 39		40 - 59		60+		AGE N/S		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	TOTAL
PHYSICIANS				1		3	4	19	256	643	738	837	399	305	298	162	126	43	5	2	12	13	3866
EDMONTON CLINIC								4	112	179	464	217	319	86	276	34	131	12	12		1	1	1848
CALGARY CLINIC								10	129	169	397	65	333	61	181	35	54	4	3				1541
LETHBRIDGE CLINIC									10	9	32	9	11	12	13	1	3	1					101
FT.MCMURRAY CLINIC								4	11	10	25	14	12	6	7	4	3						96
CORR. INSTIT.								2	9	11	17	14	4	4	4	4	2					2	73
ARMED FORCES									4	2	7	1	1		2							1	18
POSITIVE CULTURES	1	1				1		2	21	68	73	117	38	53	39	19	16	6	1	1	8	13	478
TOTAL	1	1		1		4	4	41	552	1091	1753	1374	1117	527	820	259	335	66	21	3	21	30	8021

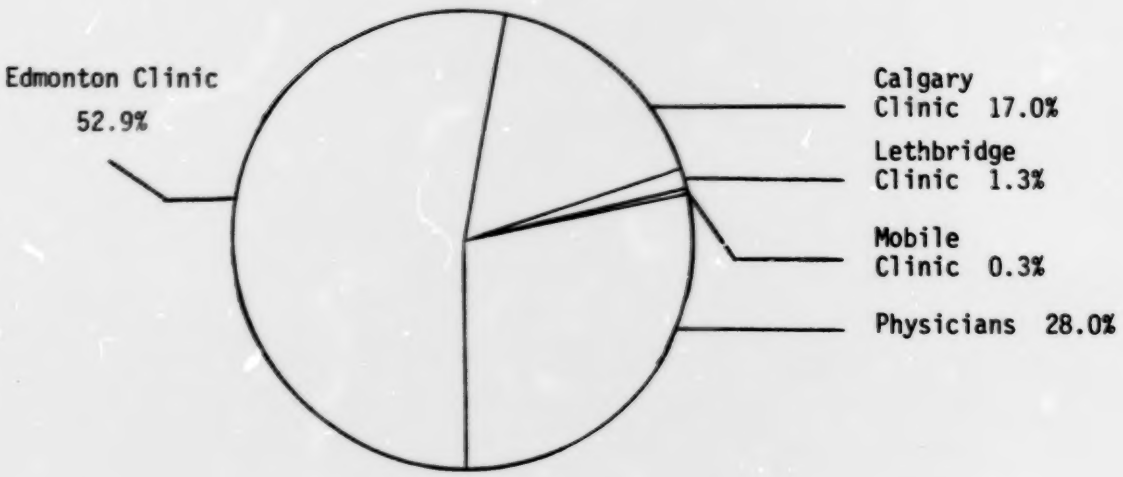
ALBERTA: 1983

PERCENTAGE OF REPORTED CONFIRMED CASES

OF GONORRHEA AND SYPHILIS BY REPORTING AGENCY

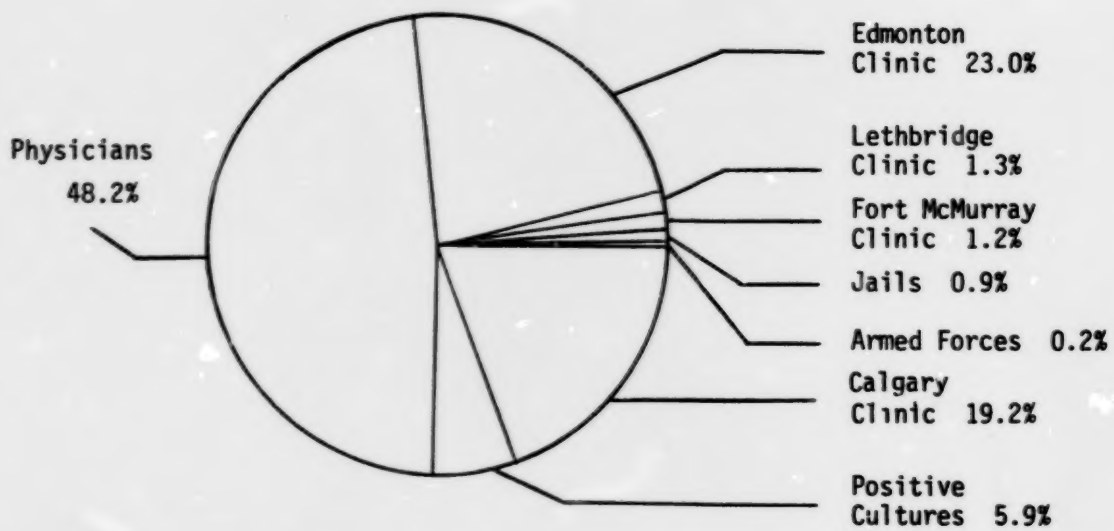
GRAPH 1

SYPHILIS



GRAPH 2

GONORRHEA



DISEASE TRENDS SINCE 1945
TABLE 5 and GRAPH 3

The table and accompanying graph depict cases and rates for gonorrhea and syphilis over the past 39 year period.

With the large decline in both cases and rate for gonorrhea in 1983 it would appear that the high levels noted for the last four years have reversed; indeed the 1983 rate is the lowest since 1971.

The number of syphilis cases counted this year is the highest since 1948, although the rate is more in keeping with those seen in the mid 1960's.

ALBERTA: 1945 - 1983

TABLE 5

SYPHILIS AND GONORRHEA
CASES AND RATES (PER 100,00 POPULATION)

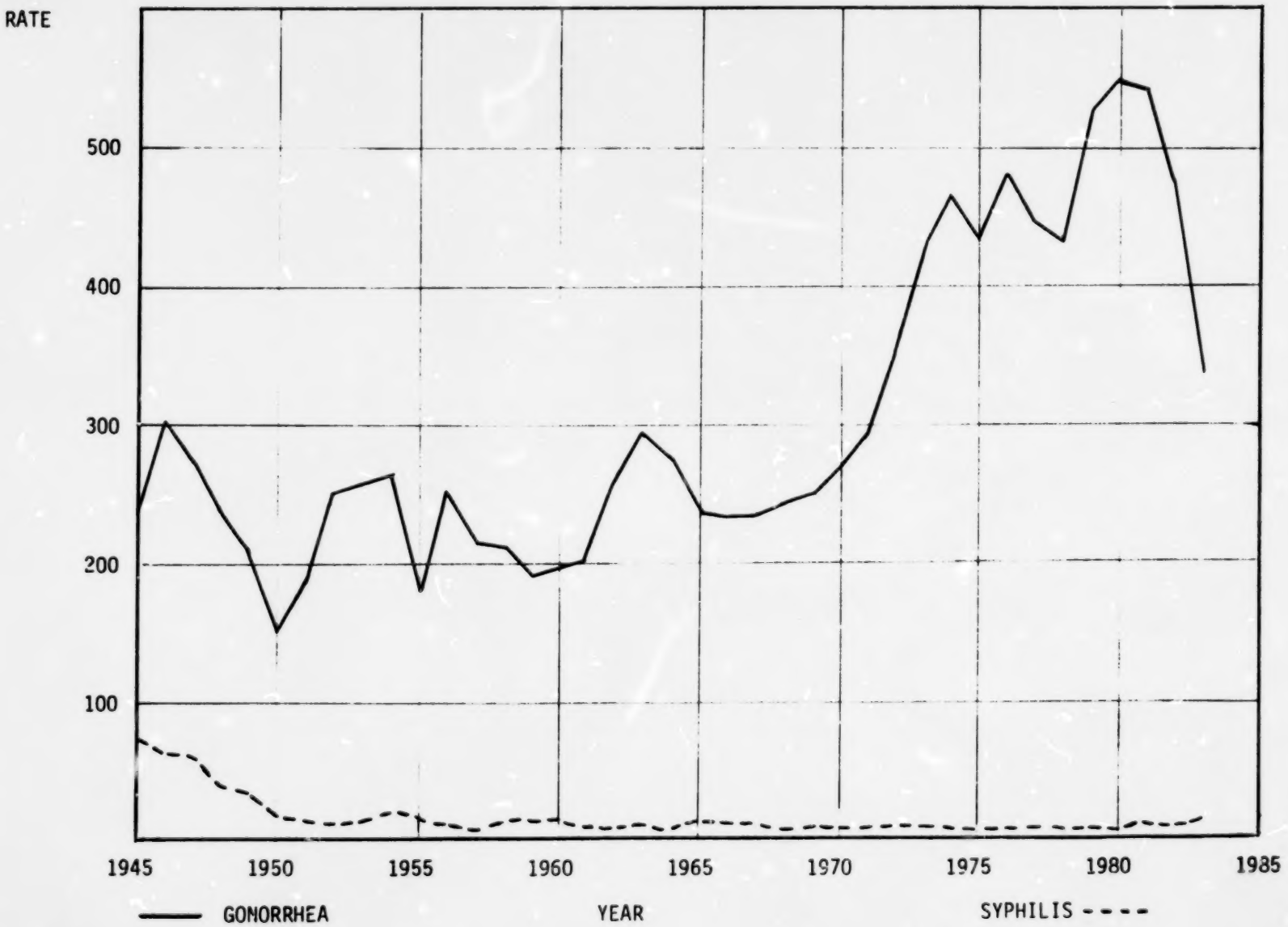
YEAR	GONORRHEA		SYPHILIS	
	Cases	Rates	Cases	Rates
1945	1,881	232.8	599	73.1
1946	2,457	301.7	503	62.6
1947	2,257	273.9	472	59.2
1948	2,032	237.9	319	37.4
1949	1,857	209.8	288	32.5
1950	1.981	152.0	165	18.1
1951	1,777	189.1	157	16.7
1952	2,450	251.8	135	13.9
1953	2,508	257.7	159	15.7
1954	2,819	266.7	212	20.1
1955	2,862	180.1	189	17.3
1956	2,842	253.0	145	12.9
1957	2,499	215.4	112	9.7
1958	2,548	211.3	167	13.8
1959	2,407	192.9	226	18.1
1960	2,560	198.3	186	14.4
1961	2,712	203.6	140	10.5
1962	3,560	260.0	134	9.8
1963	4,106	192.7	155	11.0
1964	3,953	276.7	110	7.7

YEAR	GONORRHEA		SYPHILIS	
	Cases	Rates	Cases	Rates
1965	3,455	238.3	203	14.0
1966	3,447	235.7	208	14.2
1967	3,527	236.7	203	13.6
1968	3,729	244.4	118	7.7
1969	3,967	254.3	133	8.5
1970	4,290	268.1	134	8.0
1971	4,806	294.1	127	7.8
1972	5,842	353.2	143	8.6
1973	7,300	434.5	158	9.2
1974	8,036	466.9	136	7.8
1975	7,341	432.4	121	5.9
1976	8,657	480.3	108	5.7
1977	8,208	446.6	132	7.2
1978	8,451	430.9	165	8.4
1979	10,730	529.9	173	8.5
1980	11,474	547.8	181	8.6
1981	11,692	540.2	255	11.8
1982	11,066	476.3	225	9.7
1983	8,021	339.7	306	13.0

ALBERTA

GRAPH 3 INCIDENCE RATES PER 100,000 POPULATION FOR SYPHILIS AND GONORRHEA

1945 - 1983



PPNG IN ALBERTA
TABLE 6

The first case of penicillinase-producing Neisseria gonorrhoeae was identified in Alberta in 1977; since then a total of 72 cases have been recorded. All but 2 of these were acquired abroad in PPNG endemic areas.

There was no repeat of the 1982 localized outbreak and the 15 cases which were identified in 1983 occurred sporadically throughout the year. However one of these was noted to be spectinomycin resistant.

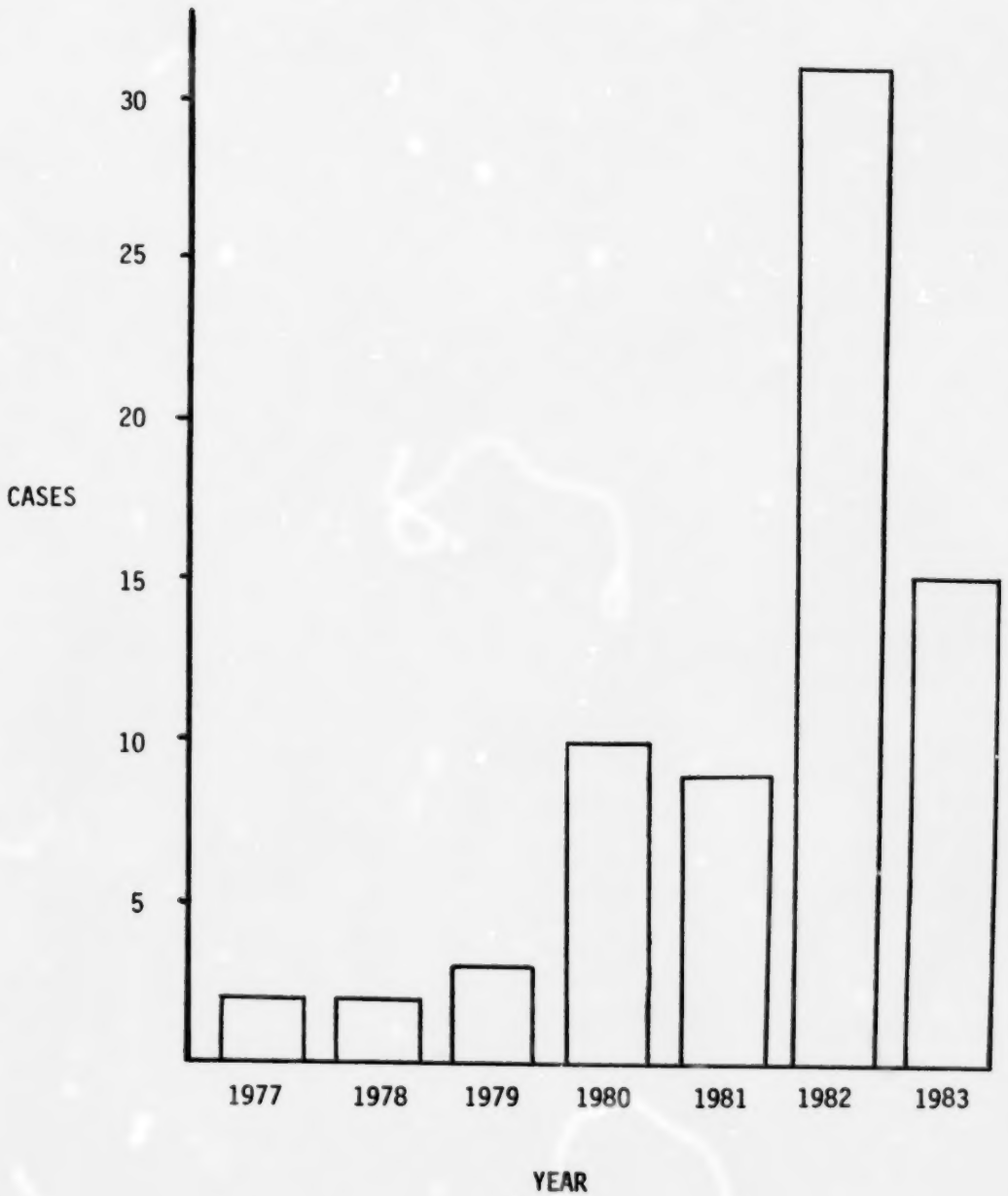
TABLE 6

CASES OF PENICILLINASE - PRODUCING

NEISSERIA GONORRHOEAE (PPNG)

in ALBERTA

1977 - 1983



NOTIFICATIONS AND CONTACT INFORMATION
TABLE 7

This table outlines both the total number of contacts that were named by clients utilizing the services of the various reporting agencies as well as the number of those contacts for which sufficient information was forwarded to permit an investigation to be initiated.

Sixty-two percent of the total contacts listed had sufficient information for investigation; this proportion is similar to that noted in 1982.

Physicians reported an average of 0.7 contacts per notification while the clinics averaged from 1.3 to 1.5 contacts per notification forwarded. A large proportion of notifications received from physicians do not list any contact information while almost all patients reported by the clinics have been interviewed regarding contacts.

Mobile clinic figures do not appear in this table as most patients located by that service would have been directed to a physician for disease confirmation and therefore could not usually be interviewed by the investigator.

TABLE 7

ALBERTA: 1983

NUMBER OF CONTACTS LISTED ON
NOTIFICATIONS RECEIVED FOR CONFIRMED
CASES OF GONORRHEA AND SYPHILIS

REPORTING AGENCY	TOTAL NOTIFICATIONS RECEIVED	CONTACTS/ TOTAL LISTED ON NOTIFICATIONS	CONTACTS/ SUFFICIENT INFORMATIONFOR INVESTIGATION
Physicians	3954	2702	1806
Edmonton Clinic	2011	2665	1500
Calgary Clinic	1598	2125	1301
Lethbridge Clinic	108	153	113
Ft. McMurray Clinic	96	146	132
Correctional Instit.	73	65	35
Armed Forces	18	19	15
TOTAL	7858	7875	4902

CONTACT INVESTIGATIONS BY CLINICS
TABLE 8

Investigations conducted by nurse investigators from each of the clinics include the follow-up of contacts to cases of confirmed gonorrhea and syphilis and the location of persons for whom a report of a positive culture or serology has been received but no record of treatment is available.

The total number of investigations carried out in 1983 decreased by 27.4% from 1982; this is consistent with the decline in cases of gonorrhea. As in 1982, 74.6% of the contact investigations conducted resulted in the location and/or treatment of the contact. The ability of the Calgary clinic to close investigations more readily than the Edmonton clinic is a reflection of the quality of contact information received from different patient populations and the focus in Edmonton on tracing contacts to infectious syphilis.

Investigations of contacts to cases of gonorrhea are closed after 3 months, while those to syphilis remain open for one year; 18.2% of contact investigations were closed in this manner with failure to locate the contact.

ALBERTA: 1983

TABLE 8

NUMBER AND OUTCOME OF INVESTIGATIONS

CARRIED OUT BY SOCIAL HYGIENE CLINICS

	CONTACT INVESTIGATIONS			POSITIVE TESTS INVESTIGATIONS *		
CLINICS	Located	Closed/ Unlocated	Remaining open	Completed	Remaining Open	TOTAL
EDMONTON	1316	451	228	725	91	2811
CALGARY	1813	295	9	303	1	2421
LETHBRIDGE	90	38	17	13	19	177
FT.MCMURRAY	134	76	8	44	6	268
MOBILE	611	108	123	472	91	1405
TOTAL	3964	968	385	1557	208	7082

* Follow-up to positive cultures and serology.

SOCIAL HYGIENE CLINICS - WORKLOAD
TABLES 9 and 10

The number of new admissions and total visits dropped for all the clinics in 1983. The Edmonton and Calgary clinics averaged 303 and 299 clinic visits per week respectively, whereas in 1982 these figures were 337 and 349.

The number of laboratory tests taken for gonorrhea declined from the 1982 levels for all the clinics with the exception of rectal cultures in females which were introduced this year as a routine diagnostic procedure for women in most clinics.

There were 3293 fewer serologic tests performed on clinic patients in 1983 than in 1982 while pre-marital testing dropped by 2429.

The large number of darkfield examinations performed reflects the increased prevalence of infectious syphilis, particularily in Edmonton. Continued public attention focussed on genital herpes is reflected in a 47% increase over 1982 in the number of herpes cultures taken this year.

ALBERTA 1983: SOCIAL HYGIENE CLINIC LABORATORY INVESTIGATIONS

TABLE 9

		EDMONTON CLINIC		CALGARY CLINIC		LETHBRIDGE CLINIC		FT. MCMURRAY CLINIC	
		Taken	Positive	Taken	Positive	Taken	Positive	Taken	Positive
URETHRAL SMEARS for N. GONORRHOEAE	MALE	2966	1155	1974	842	128	44	334	50
GONORRHEA CULTURES MALE	Urethral	6939	377	7316	471	365	56	508	47
	Rectal	539	48	707	73	23	5	2	0
	Pharyngeal	2760	69	2257	27	285	5	358	4
	TOTAL	10238	494	10280	571	673	66	868	51
GONORRHEA CULTURES FEMALE	Cervix/urethral	6072	774	5207	534	236	22	1612	139
	Rectal	3304	231	2837	141	0	0	130	6
	Pharyngeal	2679	121	2999	47	150	7	214	7
	TOTAL	12055	1126	11043	722	386	29	1956	152
DARKFIELD EXAMINATIONS		218	64	175	5	6	1	12	1
CULTURES for CHLAMYDIA TRACHOMATIS		4050	783	2836	251	287	28	1019	173
CULTURES for HERPES SIMPLEX VIRUS		1046	172	521	217	16	3	109	9
CULTURES for CANDIDA ALBICANS and TRICHOMONAS VAGINALIS		2972	543	4896	888	232	43	1612	169

ALBERTA: 1983

TABLE 10

SEROLOGIC TESTS FOR SYPHILIS
PATIENT VISITS TO CLINICS

		EDMONTON CLINIC	CALGARY CLINIC	LETHBRIDGE CLINIC	FT. MCMURRAY CLINIC	MOBILE CLINIC
SEROLOGIC TESTS for SYPHILIS	Clinic patients	10,085	9,641	440	583	145
	Pre-marital	6,292	9,608	954	-	-
	Pre-employment	267	4	-	-	-
		16,644	19,253	1,394	583	145
PATIENT VISITS	New admissions	5,002	5,092	390	387	-
	Total visits	15,749	15,067	944	1480	545*

* Mobile clinic records visits made to patients by investigators.

EDUCATION ACTIVITIES
TABLE 11

The education office of Social Hygiene Services, which makes available resource personnel for consultation and delivery of sexually transmitted disease information, was one of the few areas of service to experience an increase in activity.

The total number of presentations given rose by 25% from 1982. A major focus of the program is to provide information to individuals in the 15-19 age group; these increased by 20%.

Health care professionals in the field and in training programs require information regarding disease prevalence in the community and the availibility of patient services; presentations to these groups rose by 38.4%.

A public awareness program, highlighted by the airing of a television commercial advertising the locations and services of the clinics, took place over a 2 week period early in 1983. The commercial appeared in conjunction with bus cards and posters and all were positively received.

TABLE 11

ALBERTA

STD EDUCATION SESSIONS PRESENTED IN 1983

TYPE	NUMBER
Schools - Junior High	155
- Senior High	128
College Programs	14
Nursing/Health Care Education Programs	23
Inservice: Hospitals/Institutions	66
Health Units/Clinics	30
Life Skills/ Adult Improvement	53
General Public	60
Media Appearances	4
Presentations by Medical Staff	16
TOTAL	549

Students attending Social Hygiene Clinics for Clinical Experience:

- Medical/Resident	14
- Nursing	35